Welcome back everybody to Ideas In Progress from the IHS. Last week, professor Tawni Hunt Ferrarini joined us to talk about our recent education compulsion in the state colloquium and this week she’s back. We’ll get a little techie, a little visionary and then we’ll bring it back to the ground and try to come to some real solutions. Let’s get to it.

Right. So Professor Ferrarini, welcome back. Last week we left off with you saying that we have a general feeling in our society I think and it seems that you think that something is broken in our education system. And I think that a lot of our audience is probably familiar with Mike Munger’s arguments that a college education today is really just a signaling mechanism. It doesn’t actually indicate that you’ve learned much information if any really it just signals that you are able to accomplish a college degree. And there is relatively little connection there to what you actually learn or what your education is like.

And for another thing though, it seems that there’s a sort of technologically induced bloom of educational alternatives out there right now. So my question to you is, are we actually in the midst of an education crisis in colleges and universities especially? And if so, do we have clear ways out of it?

The reason so many people think that we’re in an education crisis as we mentioned in previous discussions is that the students grades 4, 8, and 11 as measured by or a national report card. Indicate that there are signs of struggle in the basic areas with special attention drawn to reading and arithmetic or math. And then if you branch out and include sciences our results, our students are struggling and so there are challenges there that need to be met. And then when you bring in the international metrics there suggests that we have a lot of work to do. We need to roll up our sleeves. And then that’s on the supply side.

Let’s look at the students then let’s look on the demand side and we consider some of what’s happening with the employers and the employers are reporting out that there’s this mismatch between what’s coming out of our school systems and what is needed in the workplace.

And so I do agree with Mike’s argument that education in many ways is just a signaling device. It’s something that tells the employer that you’re able to know what it is it’s expected from you. You’re able to jump through hoops and at the end of the day if you jump through all of these hoops. You walk across the
But there's also this skill building and this learning piece. That people are concerned with and they're starting to look at that more closely and they're saying, "Well what's happening in the 12 years that the students are in grades 1 through 12." And you can even go back to kindergarten if this is just a signaling advice, then where's the skill building? Where's the education? When is that taking place and does it take place inside of a school or a public school or does it take place in a nonpublic school setting, charter school, private school. Or is it something that the individual just assumes responsibility for? And I think that, that's what you're talking to or talking about when we talk about this blooming opportunity where students and parents now don't have to depend solely on the educational systems that are in their neighborhoods or in their back yards.

Technology is advanced such that we've got these incredible learning support systems out there and opportunities that we can bring into our households to compliment or compliment good education but also substitute for bad education.

Now I wasn't around 40 years ago, but I imagine round about then there were plenty of people looking at cassette tapes and thinking that they're going to replace traditional classroom learning any day now. And obviously that didn't happen. I have heard the same thing about different types of technologies over the years from televisions in classroom to computers in the classroom. And still it hasn't happened. Traditional classroom learning is here to stay for a while, yet it seems. But then again, I do often think that, well, the technological changes around our particular corner here might very seriously shake up these traditional models.

Artificial intelligence could possibly replace every single teacher of everything. Pretty quickly if it actually gets off the ground in any viable way. So what do you make of that is this another moment of people always generationally entering into these techno utopian mindsets and then they're let down?

Well, I do think that some of that is happening, but I'm excited about the advancements in so many scientific areas, including artificial intelligence and bioengineering. And the list goes on because not only do they replace some of what current labor groups do, but they also enhance what it is, some of the people who embrace these advancements can do. And what we've seen, even with the use of the iPhone. When you think about
what it has done and you compare your iPhone to the Chrysler Building in Detroit, and when you think of tens of thousands of people being employed by Chrysler and now the phone has eliminated so many jobs. You'd be very hard pressed to find somebody who wasn't excited about what that one piece of technology has done to transform the lives of the people at the very top of the income ladder, but also at the very, very bottom of the income ladder.

Tawni Hunt Ferrarini: 07:06 And so it's hard to identify these kind of like invisible effects that filter down because of the technological advancement to help the people that are struggling because it's hard to really kind of get your arms around lower prices, better quality products. Being able to have access to medications at your local pharmacist or convenience store that were only affordable to the rich and wealthy at one time. And now anybody can take it. It's just incredible.

Tawni Hunt Ferrarini: 07:41 Food production, we have enough food to feed the world. We don't have a production issue. We have a distribution issue and it's because of the advancements in technology and science and the marriage of agriculture [inaudible 00:07:57] science that we've been able to take on the responsibility of feeding the world with a population that is growing. So we're pushing back against the Malthusian crisis, which was a doomsday or who thought the population would grow and outstrip our resources and it would lead to poverty and starvation.

Tawni Hunt Ferrarini: 08:19 So it's through education and learning that the people over time, especially in this last 250 years have figured out what to do with all the changes that people could not have imagined 200 years ago. Can you imagine just taking any of the technology like the iPhone back 200 years ago? It probably seems similar to what we're talking about in AI and some of the things that are being described to us.

Tawni Hunt Ferrarini: 08:47 So I'm optimistic about that. But there is the reality that it is going to filter down and it is going to turn upside down the lives of some of the people that find that their jobs have been destroyed. But again, we just need to go back and reflect on recent history and by recent history, I mean the last 250 years or so. And we see that that has been an integral process and part of overall progress and prosperity. That's been realized all over the world unlike any other time in world history.

Anthony Comegna: 09:22 Now you're definitely speaking my language here in striking the right notes with me because I'm thinking, I've often thought that every year of school before high school was basically
pointless and didn't learn anything that was even true. Like pretty much everything you learn in a history class before high school is just like comically not true. All the little nice stories and tales that you learn in the guise of history. They're just not accurate.

Tawni Hunt Ferrarini: 09:56 Uh-huh.

Anthony Comegna: 09:56 They're not challenging, they're not critical. You're not actually learning what history is at all. You're just learning a particular story and as though it were the truth. And then you get to high school and you're supposed to start learning what something like history is right? That it's a critical discipline that is more about the historians than it is about the truth of the past.

Tawni Hunt Ferrarini: 10:21 Right.

Anthony Comegna: 10:22 And when you get to college, you're supposed to actually understand that and start putting that knowledge into practice. And that's part of how you become a complex human being, learning things like that. But through most of your education, you don't learn anything of value in that deep, meaningful way at all. You're just learning basic skills, literacy, numeracy, and some of the things. But what you were just saying makes me think that I learned that kind of stuff playing Reader Rabbit on dos. And like again, it's something like geography. I learned world geography playing. Where in the World is Carmen San Diego, right? And I'm getting the thumbs up from producer Sean. Yeah. So many of us did, or learning about the life in the West by playing Oregon Trail and then you take that into school with you and the stuff that you're learning in school might become meaningful to you then because you've already done it on your own at home with these technological methods of learning.

Anthony Comegna: 11:30 I guess my question then is, I think I agree with you that it seems like we've reached the threshold of production here. That we can produce plenty of education, a great surplus of education for everybody, but it's the distribution that is terrible. We're wedded to these old institutions literally from the medieval period and we don't seem to have a way to decouple ourselves from that.

Tawni Hunt Ferrarini: 11:57 But we do-

Anthony Comegna: 12:03 So what do we do here?
Tawni Hunt Ferrarini: **12:03**

This is the great thing about-

Anthony Comegna: **12:03**

Tell us. Tell me. What do we do?

Tawni Hunt Ferrarini: **12:03**

I was just at Princeton and I was fortunate to have a talk there and they had an exhibit. I had some time to spend. And there was an exhibit there about the printing press and the invention of it and I think it was 1400s and they showed some of the exhibits that how crude the printing press it was in this time, but then they did some of the background and the social unrest that it caused. And some of the strong pushback that it was really the printing press is going to replace people. And in many ways it was similar to what we're hearing today about artificial intelligence.

Tawni Hunt Ferrarini: **12:49**

And then we would go back and we look at what the printing press did for all of us, is it spread knowledge. It had an immense impact on people. And it opened doors where at one point, it was the holy mother church and other church that they had a monopoly on knowledge. But when the print press started running, then suddenly as it advanced through and moved through the general population, people had access to information that they hadn't had before. And so it's really kind of interesting to see what people say. I have no choice. I have to go to the public school, or I have such a short list of places where I can send my child. Well, get on your computer, take a massive open online course.

Tawni Hunt Ferrarini: **13:42**

My son was raised in a rural area. We didn't have access ... Well, we had limited access to advanced placement courses. We had very limited access to college prep courses and no access to prep courses for like the ACT and ACT. And he had a goal of going to one of the air or one of the academies, military academies, and the competition was seeds. So we got online, he took a pre calculus course at Stanford for his grade level and I think it was middle school or freshman year. And that was when he was in school. Now when I talk to some of these homeschool co-ops, it's incredible what they're doing. And we've got some very young people that are roaming around our college campus at Lindenwood University and they are going to school with their parents who are faculty and they're homeschooling. So they have block courses.

Tawni Hunt Ferrarini: **14:40**

So the young people are coming to campus, they're interacting with other young people who are older than them, but in an intellectually driven environment, which is exciting. So I think we're going to see a lot of shakeup. We already are seeing shakeup. My students arrive into my classrooms with a different
level of preparation and then they've ever had before. On the flip side of that, I do have to teach some of them to write properly, but that's okay. When I compare the two.

Anthony Comegna: 15:13

Now I think, I'm not trying to be unfair, but that solution sounds useful for college professors. I used to bring my son with me when I was a teaching assistant and I was way too poor to be paying child care. So he would just come with me to class and it was no big deal. Professors didn't mind. It fit the environment of the university just fine. But most people obviously can't do that or anything close to it. And I don't think that we want to be arguing for the days of like children being apprentices to their parents and just sort of learning whatever it is that the parent is doing.

Anthony Comegna: 15:56

So what do you think are actually the best alternatives out there for regular people who don't have those kinds of opportunities to bring their child to work with them or to homeschool them in some other way that takes a lot of the parents time.

Tawni Hunt Ferrarini: 16:13

Well, let's just go with the extreme. The homeschooling and Georgia is doing some interesting things right now. If you're going to use taxpayer dollars in order to educate and educate children and help them learn in meaningful ways. It's optimal for the child. Given the circumstances. It makes sense to empower the people who have boots on the ground and are involved in the child's life. And that could be a biological parent, it could be somebody else, it could be somebody in the community.

Tawni Hunt Ferrarini: 16:44

And what's happening in Georgia is they're actually allowing some of these parents or guardians to take taxpayer dollars and pay for people to educate their children in a homeschooling environment, which is very exciting. And Georgia is very laid back when it comes to homeschooling laws, but it's giving them more degrees of freedom one, but two, it's also holding the parents and the people who are helping the child, they are holding them accountable as well as the children. And in the homeschooling co-oping model, you have people who are right on top of those children and they're working with them in a one to one fashion.

Tawni Hunt Ferrarini: 17:31

And so it's really interesting to see how people are choosing to exit the workplace in order to invest in this education of children rather than earn income and pay for somebody else to do it. Or just let the state do it through the public educational system. I think that's an interesting trend as we move into that space. So there are a variety of options and we're seeing these
start to percolate even in areas that are distressed, the rural and remote. And the list goes on.

Anthony Comegna:  18:08  Now if we get too caught up though in the alternatives for delivering education.

Tawni Hunt Ferrarini:  18:15  Mm-hmm (affirmative)

Anthony Comegna:  18:17  I feel like we might also forget about the importance of that signaling mechanism too. So while obviously the quality of somebody's education is, I think the most important thing. That's what we tell ourselves we're going to school for. Even if, it's not actually what we get with our degrees. The signaling mechanism that you can accomplish something like college round after round of deadlines for example. That is important too. So how do we replicate that at the same time that we are actually enhancing education and do the two things have to be tied together in the way that they are now?

Tawni Hunt Ferrarini:  19:01  I think they're complimentary. I think and correct me if I'm wrong, the way you just treated it, there's substitutes for. And I think they're compliments that one can move and progress at the same time as another can. So if you identify the deficiencies and the gaps and the education of a child or in a community, you don't necessarily have to like push more public funding there or build a new school or the list goes on. Put more teachers in there. That there are these relatively low cost easy defined alternatives that you can find and place into the child's life that's going to give them maybe the best of all worlds. Does that align with what you were saying or am I getting something wrong?

Anthony Comegna:  19:52  Well-

Tawni Hunt Ferrarini:  19:52  Is what you-

Anthony Comegna:  19:54  Far be it for me to say you're getting anything wrong here. I really am not quite sure. I think that there is a lot of value in the signaling mechanism of college, although there isn't necessarily. I kind of think, I figured out how to do well in school sometime very early in high school. There was just a formula that clicked with me. This is how you do well on a test. This is the kind of stuff that you should make sure that you memorize this is what's going to show up. And I just sort of figured out the formula for how to do well in school.
And that kind of carried with me and made college pretty easy. Grad school was obviously, it's a different beast though. That's where you're really doing your intensive education, at least for me.

Yes that's where-

I'm sure a lot of grad school experiences are not like that. And so I think the signaling mechanism often gets dropped in importance when we classical liberals start talking about education. We think, oh well obviously education is such in such a poor state. That's what matters. That we're not educating our kids in school even though that's what we're supposed to do. And yet, the signals are really important and they do help add value to people's lives when they are able to accomplish a long series of deadlines and follow instructions accurately and get along with other people and all these other things.

Okay. So two things I do support your signaling argument but not as strongly as you do.

Mm-hmm (affirmative)

And the signaling piece is because when we look at, what it takes to get a high school degree now. In many ways it's just clocking so many hours at work or at school and then when the student has a high school degree, when they enter college as evidenced by the increase in the number of remedial courses that are being offered and taken and completed. What's happening at the high school level, that signaling is not communicating really what we once thought it was communicating. We had basic skills that we thought that the students were arriving on campus and they were ready to go and they were ready to bump things up and go into a higher order of learning.

And that has been shaken at its core. And then with the subsidies of the student loans by the government and the flood of students coming onto college campuses, and then an increase in the number of students who have gotten the college degrees. Now we're having signaling problems with the college degrees as well. And we're hearing from employers loud and clear that they don't understand what the college degree means as they thought they once understood what it meant. And they're having to train people at the workplace to do some very basic things that you thought that minimally they would have gotten at college. But some will reach back into high school and
say this is what somebody in high school should have learned or become skilled at doing. And the list goes on.

Tawni Hunt Ferrarini: 23:20 So the signaling is still taking place and so I do agree that you do want to have a minimally a high school degree in your pocket. You want to have some type of degree, post-secondary degree also. But think about what it is that you want to do with the degree. Do you want it just as a signaling mechanism or do you want it something that's going to say, look, this represents the skills I've learned. And it provides some meaningful dialogue with the employer. That says, you know what, I have skills that you value and I'm bringing this to your attention because right now when we look at some of the careers and occupations that are receiving some really good pay. And that's the people who are in the trades and some of them who have vocational training and they're earning as much if not more than some majors or undergraduates with these college bachelor's degrees.

Tawni Hunt Ferrarini: 24:23 So we have to think about the push and pull there. What is it signaling? And I don't think the quality of the signal is what it's used to be. In fact, it's been diluted very much by the public education system and the fact that we have this federal subsidy of the student loans taking place.

Anthony Comegna: 24:41 Now I guess I want to close here by asking you about one of my favorite figures who was not included in our reading list for the recent discussion colloquium. And that is William Godwin. Godwin's, just one of my favorite figures. Married to Mary Wollstonecraft. Father of Mary Shelley. And he wrote book after, book after book and in one of his books called Thoughts On Man. He reflects a lot on education and he presents the idea that students tend to be very unhappy and they don't learn as much as they should mainly because there is a fundamental tension between the individual seeking liberty to do what they want with their time and with their energies. And the rest of society telling them this is what's important for you to know and to learn and to do with your time. And that that is always going to lead to a conflict between the educated and the educator. And so I'm wondering what are your thoughts on a sort of system of 100% self directed education?

Tawni Hunt Ferrarini: 25:55 Well, he was the one who gave voice first to the anarchistic principles and push back against it. State controlled education. And when we talk about government and we look at state controlled education and who is government. How do we divine these people that seem to be all knowing and benevolent and we're going to put our children in the hands of these people
that were really can't identify their faces. And they're just like you and I are, they're guided by the same principles that we are.

Tawni Hunt Ferrarini: 26:34 And so, ah, let's see, how do we push back because that really brings us to the extremes don't you think? The two extremes and when we consider the threats of state controlled education we pit it against the other extreme was just whatever the alternative is, it's free education but it's guided by the individuals. We can see some of the strengths in these two points. But then we also see some of the weaknesses because we all know people that have benefited tremendously and have only been in a public educational setting in our own lives, in our personal lives. And we have a luxury to step back. You and I do because we've been able to journey through these different educational settings. In my case, I've got both public and private in my background. So I don't think it has to be so extreme and has to be so absolute as Godwin wanted.

Anthony Comegna: 27:49 And there you have it everybody. That wraps up our advanced topics discussions for quite a while. Our greatest thanks to Professor Ferrarini and to all of you for listening and sharing. See you all next week.